NPL Site Narrative for Portland Harbor

PORTLAND HARBOR
Portland, Oregon

Conditions at Proposal (July 27, 2000): The Willamette River originates within Oregon in the Cascade Mountain Range and flows approximately 187 miles north to its confluence with the Columbia River. The Lower Reach of the Willamette River from River Mile (RM) 0 to approximately RM 26.5 is a wide, shallow, slow moving segment that is tidally influenced with tidal reversals occurring during low flow periods as far upstream as RM 15. The river segment between RM 3 and RM 10 is the primary depositional area of the Willamette River system. The Lower Reach has been extensively dredged to maintain a 40-foot deep navigation channel from RM 0 to RM 14. This segment of the Lower Reach contains a highly industrialized area known as Portland Harbor, which contains a multitude of facilities and both private and municipal waste water outfalls. Up to 17 industrial operations have been identified as potential sources of contamination to Portland Harbor between RM 3.5 and RM 9.5; however, because not all sources of contamination to this river segment have been thoroughly investigated, the site is being evaluated as contaminated sediments with no identified source.

In July 1997, the United States Army Corps of Engineers (USACE) collected surface sediment samples between RM 3.8 and RM 8.9 from Portland Harbor as part of a pre-dredging sediment quality study. Analytical results document the presence of contaminated sediments in this river segment having elevated concentrations of arsenic, mercury, several pesticides, and several semivolatile organic compounds (SVOCs).

In September and October 1997, consultants for the U.S. Environmental Protection Agency (EPA) conducted field work for a Site Inspection (SI) in the Lower Reach of the Willamette River within Portland Harbor. This sampling effort included the collection of bottom sediment and porewater samples from near shore areas between RM 3.5 and RM 9.2. Analytical results document the presence of contaminated sediments in this river segment having elevated concentrations of several inorganics (i.e., metals), several SVOCs, dichloro-diphenyl-trichloroethene (DDT), and tributyltin (TBT).

Recreational fishing is extremely popular throughout the Lower Willamette River basin. Species most desired are spring chinook, steelhead, coho, shad, and white sturgeon. Spring chinook contribute substantially to the mainstem Columbia River sport fishery and consistently support the largest recreational fishery in the Lower Willamette River. The chinook fishery in the Willamette River occurs between Oregon City and the confluence of the Willamette and Columbia Rivers, which includes the area of sediment contamination. The Willamette River is also an important fish stream with spawning populations of chinook and coho salmon, steelhead, American shad, Pacific lamprey, and white sturgeon. The Lower Reach of the Willamette River to Willamette Falls provides a migratory corridor for both juvenile and adult anadromous fish and juvenile rearing habitat for several anadromous fish species. Three runs of chinook, two runs of steelhead, and individual runs of coho and sockeye salmon occur in this area. Several of these runs are either listed or proposed for listing under the Endangered Species Act.

Status (December 2000): EPA is considering various alternatives for this site.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at ATSDR - ToxFAQs (http://www.atsdr.cdc.gov/toxfaqs/index.asp) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.